Work Order ID 111718

Monday, January 20, 2014 1:56:15 PM

B111718

\*111718\*

Page 1

monuay, sanuar	y 20, 2014 1.5											
Item ID: Revision ID:	D3451-7			Accept	*N900	<u>040</u>	100	)*	Setup	Start	*N	S1*
*	Tube Handle Aı	rm								Stop	*NI	S2*
Start Date: Required Date:		<b>Start Qty:</b> 16.00 <b>Req'd Qty:</b> 16.00			Cust Item :							
Reference:										_		
Approvals:	Process Plan	: MF.	Date: 14-1-20	Tooling:	D	ate:			Run	Start Stop	^   \	R1*
:	QC:		Date:	<b>SPC</b> (Y/N): _	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejo Qty		Reject Number	Insp. Stamp
Draw Nbr	Revis	sion Nbr						,				
D3451	Rev A	A										-
*100 *100*		FLOW WATER JET		0.00				16		• \		Ac
Waterjet FLOW CNC Waterje	et	<b>Memo</b> 1-Cut as pr Deburr if n	er Dwg D3451 Dwg Rev: necessary	0.00 A Prog Rev:	_2-							14.01.2
±110		QC2- Inspect parts off	machine FAI/FAIB	0.00								
*110* QC Quality Control		Memo		0.00				16		<u>.</u>		Ac. 14.01.
120 *120*		QC8- Inspect parts - se	econd check	DAS 27 0.00   19-89   14   1   2				16				and the second
QC Quality Control		Memo		0.00	-							

DQA:			Date:										TOAR
						<b>WORK ORDER NON</b>	-CC	ONFO	RMANCE / UI	PDATE			AEROSPACE
QA Closed:			Date:							<u>\</u>	Vork Order	update only	
Work Orde	er:					DISPOSITION		_		AGAINST D	EPARTMEN	T/PROCESS	
	•					Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab	P:	od. Eng. Coor.	Quality
	•				_	Use-as-is	1	Thern	noforming	Finishing	Rec/St	ore/Packaging	Other
NCR N	lo.					Suspected Unapproved	]		Large Fab	Composite		Supplier	
												•	
Root					Desc	ription of work order update	1	nitial	Act		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Design			[										
Doc/Data	$\Box$												
Equip/Tooling													
Handling/Pre													
Material		2											
Operator				'									
Offset/Setup													
Process	$\vdash$												
Supplier Training													
Transport									ļ				
Unapproved	H												
-	_	<u> </u>		<u> </u>	1		FAI	ULT CA	TEGORY			<del></del>	
Landi	ng (	Gear				General							
		Bending				Bend		Folio/F	Program	ŗ	Outside D	mensions	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Und	er tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incor	reci [	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Ur	nqualified	Part Lost/	Missing	Weld
		Cuffs				Contamination		Instruc	tions Incomplete/l	Jnclear	Part Move	d [	Wrong Stock Pulled
		Crushing				Countersink		Misali	gned/off center		Positioned		_
		Heat Trea				Cut Too Short	$\perp$	Mislabe			Power Los	s/Surge	Other
		Inspectio	n Strip in	Tube		Drawing		Misrea					
1	_	Marks/Cl				Drill Holes		Off-set					·
	_	Turning S			Ŀ	Finish		-	Calibration			W-1047	
ŀ		Wave/Tw	ist in Tub	oe -	- 1	Fit/Function	1	Out of	Sequence				

Work Order ID 111718

\*111718\* Page 2 Monday, January 20, 2014 1:56:15 PM Accept Item ID: D3451-7 \*N900040100\* Setup Start **Revision ID:** Stop **Item Name:** Tube Handle Arm \*16\* **Start Date:** 1/20/2014 **Start Qty:** 16.00 **Cust Item ID:** Required Date: 1/24/2014 Reg'd Oty: 16.00 \*16\* **Customer:** Reference: Start Run Process Plan: Date: Tooling: Approvals: Date: Stop Date: QC: SPC (Y/N): Date: Tool ID Sequence ID/ Operation Set Up/ Tool # Plan Reject Reject Accept Insp. **Work Center ID Description** Qty Qty Number Code Stamp **Run Hours** 32 130 0.00 Identify as per dwg & Stock Location:\_\_\_\_ 9-89 \*120\* m/272 Packaging 0.00 Memo Packaging 140 QC21- Final Inspection - Work Order Release 0.00 \*140\* QC 0.00 Memo Quality Control

DQA:			Date:						_				•	
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			–	_	AEROSPACE
QA Closed:			Date:							W	ork Order up	odate only		<u> </u>
Work Orde	ar.					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
· · · · · · · · · · · · · · · · · · ·	٠				<del></del>	Rework			Skid-tube Crosstube	Г	1	Water Jet	٦	Engineering
Part N	No.		•			Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	ᅦ	Quality
	•					Use-as-is			noforming Finishing		-{	re/Packaging		Other
NCR I	۱o. ِ					Suspected Unapproved			Large Fab Composite		]	Supplier		
Root					Desci	ription of work order update	ı	nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification		QC Inspector
Design														
Doc/Data														
Equip/Tooling				į					,				-	
Handling/Pre			Į											
Material													ļ	
Operator			:											
Offset/Setup														
Process												1		
Supplier									1					
Training														
Transport	<u></u>		į										ı	
Unapproved			į						1					
							FA	ULT CA	TEGORY					
Landi		1			_	General	_	1	_		<b>1</b>	. г	_	-
	$\vdash$	Bending			_	Bend		4 .	Program	<u> </u>	Outside Dim	<del> -</del>	_	Pressure/Forced
	<u> </u>	Centre N	ot Concei	ntric		BOM/Route	L	Grain		-	Over/Under	<u> </u>	_	Set-up
ļ	⊢	Cracks			1	Broken/Damage/Defect	<u> </u>	Hardwa		$\vdash$	Part Incorre	<b>⊢</b>	_	Temperature/Cure
	L	Crimp/Ki	nk/Ripple	e/Wave	-	Burrs	L	<b>-</b> 1 '	tion Incomplete/Unqualified	$\vdash$	Part Lost/M	<b>F</b>	_	Weld
	$\vdash$	Cuffs			<u> </u>	Contamination	<u> </u>		tions Incomplete/Unclear	$\vdash$	Part Moved	_		Wrong Stock Pulled
	$\vdash$	Crushing			$\vdash$	Countersink	-	-	gned/off center	$\vdash$	Positioned V	_	$\neg$	Othor
	$\vdash$	Heat Trea		Tt	-	Cut Too Short	-	Mislab			Power Loss/	Surge	1	Other
	$\vdash$	Inspectio	•	Tube	<u> </u>	Drawing Drill Holos	-	Misrea						
[	-	Marks/Cl			-	Drill Holes	$\vdash$	Off-set						
	$\vdash$	Turning S	•		<u> </u>	Finish	$\vdash$	-1	Calibration					
•	1	Wave/Tw	vist in Tul	be		Fit/Function	L	Out of	Sequence					

**Picklist Print** 

Monday, January 20, 2014 2:12:34 PM

Work Order ID:

111718

Parent Item:

D3451-7

Parent Item Name:

Tube Handle Arm

**Start Date:** 1/20/2014

Required Date: 1/24/2014

**Start Qty: 16.00** 

Page 1

Required Qty: 16.00

**Comments:** 

IPP Rev:A 08-06-18 new issue DD verified by:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.125		Purchased	No				sf	201.7900		1.1104	,		
6061-T6 .125 Sheet											_Ae	14.	<u> </u>
				<b>Location</b>		Loc Oty	Lo	c Code					
				MAT021		201.79							
				m127	272	39.5							
				m127	454	130.29			12	<u> 145</u> 4 –	<b>→</b> 1.	12	

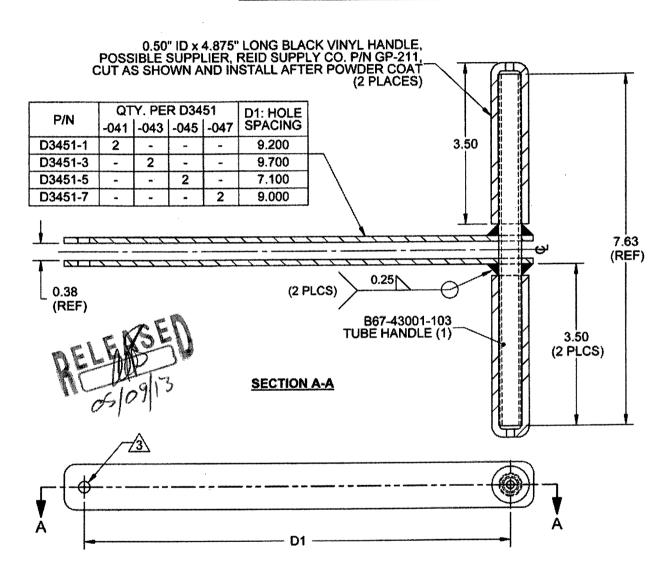
32

m127501

DQA:			Date:										//	AART
						WORK ORDER NON	-CC	ONFO	RMANCE / UPD			–	_	AEROSPACE
QA Closed:			Date:							We	ork Order up	date only		
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT/	PROCESS		
Work Oral	•			· · · · · · · · · · · · · · · · · · ·		Rework	1		Skid-tube	Crosstube	]	Water Jet	7 F	ingineering
Part N	No.					Scrap	1 1		<del></del>	Small Fab	Prod	d. Eng. Coor.	┪╶	Quality
	-					Use-as-is	1		noforming	Finishing	4	e/Packaging		Other
NCR N	No.					Suspected Unapproved	]		Large Fab C	Composite	]	Supplier		
			<b>.</b>		_			1			l s: 0 l			
Root	l	5.	٠. ا	۵.	Desci	ription of work order update	ı	nitial	Action		Sign &	\/:: <b>f</b> : <b>-</b> :		064
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descript	ion	Date	Verification	-	QC Inspector
Design	$\vdash$										ļ			
Doc/Data	$\vdash$													
Equip/Tooling	Н													
Handling/Pre	Н													
Material	Н		]	1					[					
Operator Offset/Setup	Н		1											
Process	$\vdash$													
Supplier	H		:						:					
Training	H												ı	
Transport	Н	-					1		}					
Unapproved					İ									
							FA	ULT CA	TEGORY					
Landi	ng (	ear				General		_			_			
		Bending				Bend		Folio/F	Program		Outside Dim	ensions	Pre	essure/Forced
		Centre N	ot Concei	ntric		BOM/Route		Grain		<u> </u>	Over/Under	tolerance	_	t-up
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorred		-	mperature/Cure
		Crimp/Ki	nk/Ripple	e/Wave	<u> </u>	Burrs		Inspect	ion Incomplete/Unqu	ıalified	Part Lost/Mi	ssing	_ ~'	
		Cuffs			<u> </u>	Contamination	<u></u>	4	tions Incomplete/Unc	lear	Part Moved	L	w	rong Stock Pulled
		Crushing				Countersink		-	gned/off center		Positioned V		—	
	_	Heat Trea				Cut Too Short	<u>_</u>	Mislab			Power Loss/	Surge	Ot	her
	<u> </u>	Inspectio		Tube	$oxedsymbol{oxed}$	Drawing	<u></u>	Misrea						
	<u></u>	Marks/Cl				Drill Holes	<u> </u>	Off-set				<del> </del>		
(	<u></u>	Turning S	-			Finish	<u> </u>	4	Calibration					
ት	1	Wave/Tv	vist in Tul	be		Fit/Function		Out of	Sequence					



	1	- 1			
DESIGN	<b>\$</b>	DRAWN I	3Y	1	OSPACE LTD ONTARIO, CANADA
CHECK		APPROX	<b>を</b>	DRAWING NO. D3451	REV. A SHEET 1 OF 2
DATE	05.0	)8.25		HANDLE & LOCK	SCALE K-DOWN ASS'Y 1:2
 Α	0	5.08.25		NEW ISSUE	-



医多种 医脓性管 囊乳管性 医二

# D3451-041/-043/-045/-047 HANDLE & LOCK-DOWN ASS'Y

D3451-041 SUPERSEDES PREMIER P/N B67-43001-41 D3451-045 SUPERSEDES PREMIER P/N B67-43001-39 D3451-047 SUPERSEDES PREMIER P/N B67-43001-55

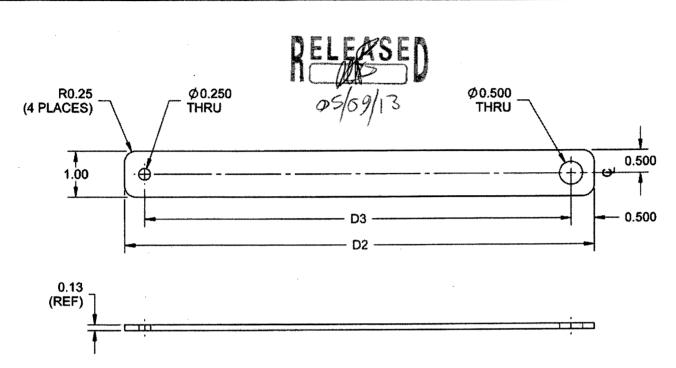
### **NOTES:**

- 1) WELD PER DART QSI 004
- CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 MASK BEFORE PAINTING.
- FINISH: POWDER COAT PAINT GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
- PART IS SYMETRICAL ABOUT CENTER LINE.
  TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  ALL DIMENSIONS ARE IN INCHES 6
- 8) BREAK ALL SHARP EDGES 0.005 TO 0.010

DQA:			Date:										
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / UPDAT	TE			AEROSPACE
QA Closed:			Date:							Wo	ork Order up	date only	].
Work Orde	er:		-			DISPOSITION		٠	AG	GAINST DE	PARTMENT	PROCESS	
	•					Rework	1	,	Skid-tube Cro	osstube		Water Jet	Engineering
Part N	lo.					Scrap			<u> </u>	nall Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is		Therr	moforming Fig	nishing	Rec/Stor	re/Packaging	Other
NCR N	lo.					Suspected Unapproved	]		Large Fab Com	nposite		Supplier	
Root	Ţ				Desci	ription of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance		ief Eng	l l	1	Date	Verification	QC Inspector
Design													<u> </u>
Doc/Data							1						
Equip/Tooling						•						•	
Handling/Pre						•							
Material						•	İ					8	
Operator												Ī	
Offset/Setup													
Process													
Supplier													
Training													
Transport												!	
Unapproved													
							FA	ULT CA	TEGORY				
Landi						General	_	1		_	1	_	7
		Bending			_	Bend	<u> </u>	1	Program		Outside Dim		Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route	_	Grain			Over/Under	<del></del>	Set-up
		Cracks			<u> </u>	Broken/Damage/Defect	L	Hardwa		ļ	Part Incorre	<del> </del>	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	L.	1 '	tion Incomplete/Unqualif		Part Lost/Mi	ssing	Weld
	$\vdash$	Cuffs			_	Contamination	<u> </u>	4	tions Incomplete/Unclear	r	Part Moved		Wrong Stock Pulled
		Crushing				Countersink	<u></u>	4	gned/off center		Positioned V		7
		Heat Trea				Cut Too Short	$\vdash$	Mislab			Power Loss/	Surge	Other
	L	Inspection	•	Tube	_	Drawing		Misrea					
		Marks/Ch			<u> </u>	Drill Holes		Off-set					· · · · · · · · · · · · · · · · · · ·
	L	Turning S				Finish		-1	Calibration				
	Ì	Wave/Tw	ist in Tub	oe .		Fit/Function		Out of	Sequence			· <del>-</del>	



1			
DESIGN	DRAWN BY		OSPACE LTD ONTARIO, CANADA
CHECKED	APPROYED	D3451	REV. A SHEET 2 OF 2
DATE 05	.08.25	HANDLE & LOCK	SCALE K-DOWN ASS'Y 1:2



P/N	D2: CUT LENGHT	D3: HOLE SPACING
D3451-1	10.25	9.200
D3451-3	10.63	9.700
D3451-5	8.00	7.100
D3451-7	10.00	9.000

## D3451-1/-3/-5/-7 TUBE HANDLE ARMS

D3451-1 SUPERSEDES PREMIER P/N B67-43001-303 D3451-5 SUPERSEDES PREMIER P/N B67-43001-301 D3451-7 SUPERSEDES PREMIER P/N B67-43001-101

#### NOTES:

1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
PER AMS-QQ-A-200/8 (OR AMS 4160)
(REF. DART SPEC. M6061T6B0.125)
2) PART IS SYMETRICAL ABOUT CENTER LINE.
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

5) BREAK ALL SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2005 BY DART AEROSPACE LTD.

DQA:			Date:										•	TO AR
_						<b>WORK ORDER NON</b>	-CC	ONFO	RMANCE / UPDATE			-		AEROSPACE
QA Closed:			Date:							Wo	rk Order up	date only		*****
Work Orde	r:				·	DISPOSITION			AGAINST	DEP	ARTMENT	PROCESS		
	•					Rework	1		Skid-tube Crosstube			Water Jet		Engineering
Part N	lo.					Scrap	1	1	Machining Small Fab		Pro	d. Eng. Coor.	$\Box$	Quality
	•					Use-as-is	1	Thern	noforming Finishing		Rec/Stor	e/Packaging		Other
NCR N	lo.				· 	Suspected Unapproved	]		Large Fab Composite			Supplier		
Root					Desci	ription of work order update	ı	nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	1	QC Inspector
Design														
Doc/Data														
Equip/Tooling														
Handling/Pre														
Material			ŀ			•				İ				
Operator							1		•				١	
Offset/Setup														
Process		1							) · · · · ·				ı	
Supplier													ı	
Training											•		-	
Transport						•			·				٠	
Unapproved									FCCORV					
l a m di	(	3				Canaval	FA	ULI CA	TEGORY					****
Landi	_	Bending			,	General Bend			Program		Outside Dim	onsions [		Pressure/Forced
	-	Centre No	at Cancar	ntrio:	-	BOM/Route	$\vdash$	Grain	Togram	ш	Over/Under	<b>}</b>		Set-up
	-	Cracks	ot concei	IIIIIC		Broken/Damage/Defect	$\vdash$	Hardwa	ara	-	Part Incorre			Temperature/Cure
	$\vdash$	Crimp/Kii	nk/Rinnle	/\ <i>M</i> >ve	-	Burrs	$\vdash$	4	ion Incomplete/Unqualified	Н	Part Lost/Mi		-	Weld
	┝	Cuffs	iik/itippie	y wave	-	Contamination	$\vdash$	4 `	tions Incomplete/Unclear	-	Part Moved	331118	-	Wrong Stock Pulled
	_	Crushing				Countersink	$\vdash$	4	gned/off center	-	Positioned V	l Vrong		Wilding Stock Fulled
	$\vdash$	Heat Trea			-	Cut Too Short		Mislabe		-	Power Loss/			Other
	$\vdash$	Inspectio		Tube		Drawing		Misrea		۳		· U - U	1	<u>·</u>
	-	Marks/Ch	•			Drill Holes	$\vdash$	Off-set		-		·		
	$\vdash$	Turning S				Finish		-1	Calibration	-				
	Г	Wave/Tw	=			Fit/Function		-	Sequence	-				

DART AEROSPACE LTD	Work Order: 3111718
Description: TUBE HANDLE ARM	Part Number: 03451-7
Inspection Dwg: D3451 Rev: A	Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.500	+1- ,010	,500			V	JKM05
,500	+1- ,010	,500	_		V	
1.00	+1030	1.00			V	
9.000	+1- 1010	9.00			T	OKM-06
10.00	+1- 1030	10.00			T	
.125	+1- ,010	.122			<b>V</b>	
Ø .250	+.005/-001	. 253				
Ø ,500	+.006/-2001	.502				
			,			
						·
				-		
			DAS			

		UNO		
Measured by:	Audited I	oy: 27	Preliminary Approval:	
Date:	01.99 Da	te: 14/1/23	Date:	

				A
Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

\$ 10.04.15